WHAT IS CLAIMED IS:

1. An image sensing apparatus capable of connecting to an external information processing apparatus, comprising:

an image sensor adapted to sense an object and output an image signal representing the image of the object;

a signal processor adapted to subject the image signal to predetermined signal processing;

a communication unit adapted to communicate with said information processing apparatus; and

a controller adapted to change over a control method of said signal processor in accordance with the communication speed of said communication unit.

2. The apparatus according to claim 1, wherein said communication unit is capable of performing communication at a plurality of communication speeds and said controller performs control in such a manner that the image signal is transmitted without being subjected to signal processing by said signal processor if the communication speed of said communication unit is high, and such that the image signal is transmitted after being subjected to signal processing by said signal processor if the communication speed of said communication unit is low.

3. The apparatus according to claim 2, wherein said controller performs control so as to transmit the

image signal, which has bypassed said signal processor, if the communication speed is high.

4. The apparatus according to claim 2, further comprising memory adapted to store the image signal temporarily,

wherein said controller changes over a method of accessing said memory in accordance with communication speed of said communication unit.

5. The apparatus according to claim 4, wherein said memory includes first memory having a high access speed and second memory having a low access speed, said communication unit is capable of performing communication at a plurality of communication speeds and said controller performs control in such a manner that only said first memory is used to output the image signal to said communication unit when the communication speed of said communication unit is high, and said second memory is used to output the image signal to said communication unit when the communication speed of said communication unit is low.

6. The apparatus according to claim 1, wherein said controller changes the driving speed of said image sensor in accordance with the communication speed of said communication unit.

7. The apparatus according to claim 6, further comprising a movement controller adapted to move said image sensor in a sub-scan direction,

wherein said controller changes a moving speed of said image sensor controlled by said movement controller in accordance with the communication speed of said communication unit.

8. The apparatus according to claim 7, wherein said communication unit is capable of performing communication at a plurality of communication speeds and said controller controls the moving speed of said movement controller to be a first speed if the communication speed of said communication unit is high, and to be a second speed which is slower than the first speed if the communication speed of said communication unit is low.

9. The apparatus according to claim 7, wherein said communication unit is capable of performing communication at a plurality of communication speeds and said controller controls the moving speed of said movement controller to be a first speed if the communication speed of said communication unit is high, and to be a second speed which is slower than the first speed if the communication speed of said communication unit is low and a required resolution is high.

10. The apparatus according to claim 8 or 9, wherein said controller controls the moving speed of said image sensor controlled by said movement controller to be the first speed which executing pre-image sensing

operation regardless of the communication speed of said communication unit.

11. The apparatus according to claim 8 or 9, wherein said controller controls the moving speed of said image sensor controlled by said movement controller to be the first speed while said image sensor is moving to the home position regardless of the communication speed of said communication unit.

12. The apparatus according to claim 1, further comprising a power controller adapted to change over an electric power supply mode in accordance with communication speed of said communication unit.

13. The apparatus according to claim 12, wherein said communication unit is capable of performing communication at a plurality of communication speeds and said power controller selects a power saving mode as the electric power supply mode if the communication speed of said communication unit is low.

14. The apparatus according to claim 13, wherein said image sensor comprises an illumination unit adapted to illuminate the object upon sensing the object, and in the power saving mode, electric power for driving said illumination unit is reduced compared to other mode.

15. The apparatus according to claim 14, wherein said image sensor comprises an illumination unit adapted to illuminate the object upon sensing the object and photoelectric conversion elements, and in the power

saving mode, electric power for driving said illumination unit is reduced and an image sensing period by said photoelectric conversion elements are prolonged compared to other mode.

16. The apparatus according to claim 1, further comprising a switch adapted to enable manually switching communication speeds of said communication unit.

17. An information processing apparatus capable of controlling an external image sensing apparatus by connecting thereto, said external image sensing apparatus having an image sensor adapted to sense an object and output an image signal representing the image of the object, a signal processor adapted to subject the image signal to predetermined signal processing, and a communication unit adapted to perform communication, said information processing apparatus comprising:

a communication unit adapted to communicate with the external image sensing apparatus;

a sensor adapted to sense communication speed of said communication unit;

a signal processor adapted to subject the image signal, which has been obtained from the image sensing apparatus, to predetermined signal processing; and

a controller adapted to perform control so as to change over a method of controlling the signal processor of said external image sensing apparatus in accordance with the communication speed sensed by said sensor, and

change over control of the signal processor within said information processing apparatus.

18. The apparatus according to claim 17, wherein said communication unit of said external image sensing apparatus is capable of performing communication at a plurality of communication speeds, and

if the communication speed of said communication unit is high, said controller performs control in such a manner that the image signal is transmitted without being subjected to signal processing by the signal processor of said external image sensing apparatus, and performs control in such a manner that signal processing by the signal processor within said information processing apparatus is executed, and

if the communication speed of said communication unit is low, said controller performs control in such a manner that the image signal is transmitted after being subjected to signal processing by the signal processor of said external image sensing apparatus, and performs control in such a manner that signal processing by the signal processor within said information processing apparatus is not executed.

19. The apparatus according to claim 18, wherein said controller performs control so as to transmit the image signal, which has bypassed said signal processor, if the communication speed is high.

20. The apparatus according to claim 18, wherein said external image sensing apparatus further comprising memory adapted to store the image signal temporarily,

wherein said controller changes over a method of accessing said memory in accordance with communication speed sensed by said sensor.

21. The apparatus according to claim 20, wherein said memory includes first memory having a high access speed and second memory having a low access speed, said external image sensing apparatus is capable of performing communication at a plurality of communication speeds and said controller performs control in such a manner that only said first memory is used to output the image signal to said communication unit when the communication speed of said communication unit is high, and said second memory is used to output the image signal to said communication unit when the communication speed of said communication unit is low.

22. The apparatus according to claim 17, wherein said controller changes the driving speed of said image sensor in accordance with the communication speed sensed by said sensor.

23. The apparatus according to claim 22, wherein the external image sensing apparatus further comprising a movement controller adapted to move the image sensor in a sub-scan direction,

wherein said controller changes a moving speed of said image sensor controlled by said movement controller in accordance with the communication speed of said communication unit.

24. The apparatus according to claim 17, wherein said communication unit of said external image sensing apparatus is capable of performing communication at a plurality of communication speeds, and said controller controls the moving speed of said movement controller to be a first speed if the communication speed of said communication unit is high, and to be a second speed which is slower than the first speed if the communication speed of said communication unit is low.

25. The apparatus according to claim 23, wherein said communication unit of said external image sensing apparatus is capable of performing communication at a plurality of communication speeds and said controller controls the moving speed of said movement controller to be a first speed if the communication speed of said communication unit is high, and to be a second speed which is slower than the first speed if the communication speed of said communication unit is low and a required resolution is high.

26. The apparatus according to claim 24 or 25, wherein said controller controls the moving speed of said image sensor controlled by said movement controller to be the first speed which executing pre-image sensing

operation regardless of the communication speed of said communication unit.

27. The apparatus according to claim 24 or 25, wherein said controller controls the moving speed of said image sensor controlled by said movement controller to be the first speed while said image sensor is moving to the home position regardless of the communication speed of said communication unit.

28. The apparatus according to claim 17, further comprising a mode switch adapted to change over an electric power supply mode,

wherein said controller controls the power controller to change over the power supply mode in accordance with communication speed of said communication unit.

29. The apparatus according to claim 28, wherein said communication unit of said external image sensing apparatus is capable of performing communication at a plurality of communication speeds and said controller selects a power saving mode as the electric power supply mode if the communication speed of said communication unit is low.

30. The apparatus according to claim 29, wherein said image sensor of said external image sensing apparatus comprises an illumination unit adapted to illuminate the object upon sensing the object, and in

the power saving mode, electric power for driving said illumination unit is reduced compared to other mode.

31. The apparatus according to claim 30, wherein said image sensor of said external image sensing apparatus comprises an illumination unit adapted to illuminate the object upon sensing the object and photoelectric conversion elements, and in the power saving mode, electric power for driving said illumination unit is reduced and an image sensing period by said photoelectric conversion elements are prolonged compared to other mode.

32. A method of controlling an image sensing apparatus having an image sensor adapted to sense an object and output an image signal representing the image of the object, a signal processor adapted to subject the image signal to predetermined signal processing, and a communication unit adapted to perform communication, said method comprising;

a sensing step of sensing communication speed of the communication unit; and

a control step of performing control so as to change over a method of controlling the signal processor in accordance with the communication speed sensed at said sensing step.

33. The method according to claim 32, wherein said communication unit is capable of performing communication at a plurality of communication speeds and

said control step performs control in such a manner that the image signal is transmitted without being subjected to signal processing by said signal processor if the communication speed of said communication unit is high, and such that the image signal is transmitted after being subjected to signal processing by said signal processor if the communication speed of said communication unit is low.

34. The method according to claim 33, wherein said control step transmits the image signal, which has bypassed said signal processor, if the communication speed is high.

35. The method according to claim 33, further comprising memory adapted to store the image signal temporarily,

wherein said control step changes over a method of accessing said memory in accordance with communication speed of said communication unit.

36. The method according to claim 35, wherein said memory includes first memory having a high access speed and second memory having a low access speed, said communication unit is capable of performing communication at a plurality of communication speeds and said control step performs control in such a manner that only said first memory is used to output the image signal to said communication unit when the communication speed of said communication unit is high, and said

second memory is used to output the image signal to said communication unit when the communication speed of said communication unit is low.

37. The method according to claim 32, wherein said control step changes the driving speed of the image sensor in accordance with the communication speed of the communication unit.

38. The method according to claim 37, wherein the external image sensing apparatus further comprising a movement controller adapted to move the image sensor in a sub-scan direction,

the method further comprising a moving speed changing step of changing a moving speed of said image sensor controlled by said movement controller in accordance with the communication speed of the communication unit.

39. The method according to claim 38, wherein said communication unit is capable of performing communication at a plurality of communication speeds and said moving speed changing step controls the moving speed of said image sensor controlled by said movement controller to be a first speed if the communication speed of the communication unit is high, and to be a second speed which is slower than the first speed if the communication speed of the communication unit is low.

40. The method according to claim 38, wherein said communication unit is capable of performing

communication at a plurality of communication speeds and said moving speed changing step controls the moving speed of said movement controller to be a first speed if the communication speed of said communication unit is high, and to be a second speed which is slower than the first speed if the communication speed of said communication unit is low and a required resolution is high.

41. The method according to claim 39 or 40, wherein said moving speed changing step controls the moving speed of said movement controller to be the first speed while executing pre-image sensing operation regardless of the communication speed of the communication unit.

42. The method according to claim 39 or 40, wherein said moving speed changing step controls the moving speed of said image sensor controlled by said movement controller to be the first speed while the image sensor is moving to the home position regardless of the communication speed of said communication unit.

43. The method according to claim 32, wherein the external image sensing apparatus further comprising a mode switch adapted to change over an electric power supply mode,

wherein said control step change over the electric power supply mode in accordance with the communication speed sensed at said sensing step.

44. The method according to claim 43, wherein said communication unit is capable of performing communication at a plurality of communication speeds and said control step controls so as to select a power saving mode as the electric power supply mode if the communication speed of the communication unit is low.

45. The method according to claim 44, wherein the image sensor comprises an illumination unit adapted to illuminate the object upon sensing the object, and in the power saving mode, said control step controls to reduce electric power for driving the illumination unit compared to other mode.

46. The method according to claim 45, wherein said image sensor comprises an illumination unit adapted to illuminate the object upon sensing the object and photoelectric conversion elements, and in the power saving mode, said control step controls to reduce electric power for driving the illumination unit and to prolong an image sensing period by the photoelectric conversion elements compared to other mode.

47. A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for controlling an image sensing apparatus having an image sensor adapted to sense an object and output an image signal representing the image of the object, a signal processor adapted to subject the image signal to predetermined

signal processing, and a communication unit adapted to perform communication, said product including:

first computer readable program code means for sensing communication speed of the communication unit; and

second computer readable program code means for performing control so as to change over a method of controlling the signal processor in accordance with the sensed communication speed.